# American Recovery and Reinvestment Act (ARRA): The Common Fund

Council of Councils Meeting
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Elizabeth L. Wilder, Ph.D.

Deputy Director

Office of Strategic Coordination/DPCPSI





### Common Fund ARRA:

# One Hundred Eleventh Congress of the United States of America

AT THE FIRST SESSION

Begun and held at the City of Washington on Tuesday, the sixth day of January, two thousand and nine

#### An Act

Making supplemental appropriations for job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization, for the fiscal year ending September 30, 2009, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### SECTION 1. SHORT TITLE.

This Act may be cited as the "American Recovery and Reinvestment Act of 2009".

- "For an additional amount for "Office of the Director",
- \$8,200,000,000: Provided, That \$7,400,000,000 shall be transferred to the Institutes and Centers of the National Institutes of Health ("NIH") and to the Common Fund established under section 402A(c)(1) of the Public Health Service Act in proportion to the appropriations otherwise made to such Institutes, Centers, and Common Fund for fiscal year 2009.

\$137 million





#### Planning Philosophy

- The majority of ARRA funds should support new projects.
- Current Common Fund programs may be expanded if high priority needs are identified.
  - Administrative Supplements and Revisions
  - Additional awards for 2008, 2009 FOAs
- Challenge Grant topics were solicited from Roadmap Working Groups and the Office of Science Education.
- CF will fund GO grants that address multi-IC challenges/opportunities – not just those that are relevant to Roadmap.





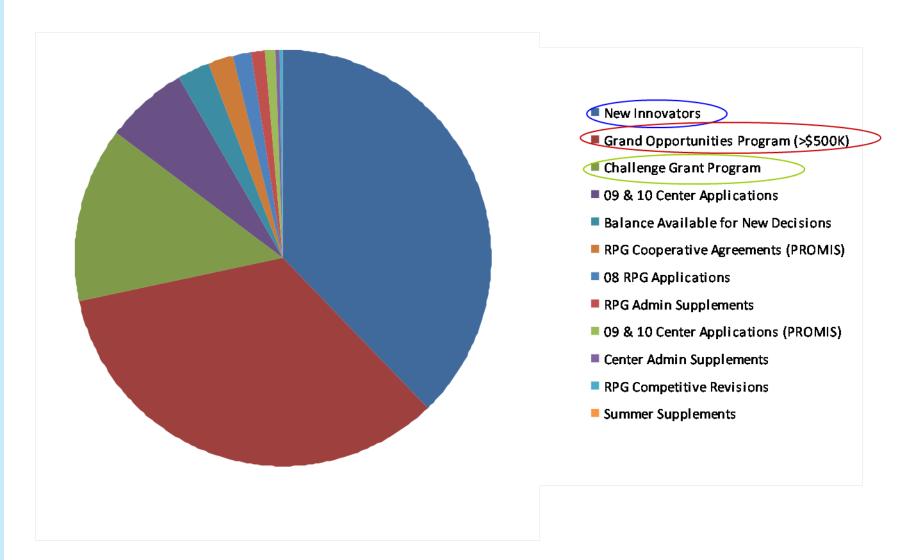
#### **CF Challenge Grant Topics**

- Roadmap Groups were asked to identify challenges relevant to their Programs. We also asked OSE to develop STEM Ed challenges. The resulting broad topics were addressed in the resulting list of challenges:
  - Behavior, Behavioral Change, and Prevention
  - Bioethics
  - Biomarker Discovery and Validation
  - Clinical Research
  - Enabling Technologies
  - Genomics
  - Information Technology for Processing Health Care Data for Research
  - Science, Technology, Engineering and Mathematics (STEM) Education
  - Translational Science





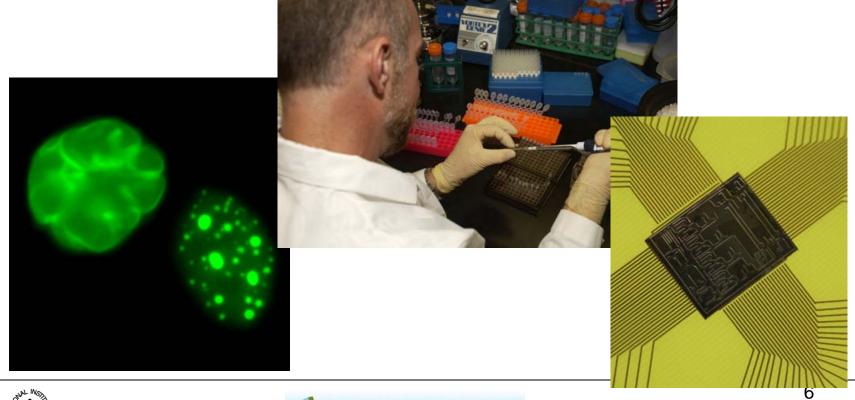
#### **Common Fund ARRA**





### What are we supporting?

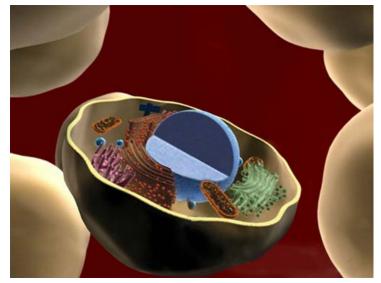
 A few areas emerged that cut across the various initiatives and funding mechanisms:

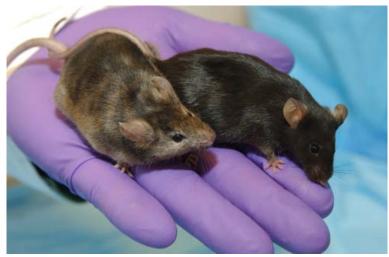




#### **Stem Cells: Moving Toward Translation**

- Factors controlling differentiation in complex environments
- Insights, methodologies and reagents for efficient nuclear reprogramming of human stem cells into safe and effective human iPSCs for regenerative medicine
- Humanized mouse models to develop and test new therapies

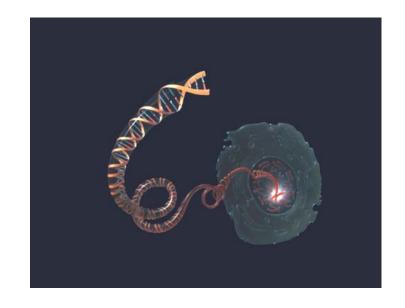






#### **Epigenetics: New technologies**

- Developing a new protein array technology and computational tools for global, high throughput discovery of histone-binding proteins
- Defining profiles of epigenetic changes (microRNAs) that can be used to predict response to chemotherapeutics in animals and humans
- Identifying small molecules that bind to proteins that are involved in modifying histone structure







#### **Behavior Change: What works?**

- Developing an adaptable computer system that can interact with a cell phone so it can be used to study the effectiveness of daily reminders and reporting in monitoring and promoting healthy behaviors in the home and work place.
- Testing whether providing nutritional information on groceries promotes the purchase of healthy foods when provided alone or in combination with subsidies for healthy foods
- Testing whether cues in the home environment, for example the size of the dinner plate, affect the amount of food children eat.

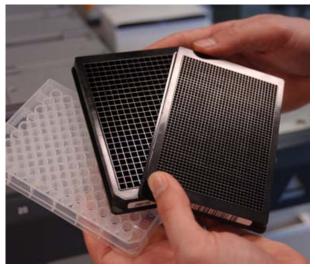




## High Throughput Screening: More, Better, Faster

- Developing an HTS test that can screen three-dimensional cultures of human cancer cells to identify chemicals that kill cancer cells
- Developing tests to identify inhibitors of malaria parasites
- Identifying cellular genes that are necessary for Human Immunodeficiency Virus (HIV) to go into hiding or become dormant, with the goal of exploiting these genes to prolong HIV dormancy and reduce the symptoms of acquired immunodeficiency syndrome (AIDs).









### STEM Education: New emphasis for an established interest

- ARRA has allowed the NIH to bolster its effort to attract young people to biomedical and behavioral science careers and to improve science literacy in both adults and children.
  - Establish the efficacy of a fully developed intervention at improving the problem-solving performance of third graders with mathematics difficulty
  - Comprehensively assess whether inclusion of engineering curricula in elementary school improves technological literacy and promotes positive attitudes about engineering
  - Assess the long-term impact of placement of scientists in middle school classrooms to enhance learning and teaching in science



http://dpcpsi.nih.gov/osc/commonfund.asp



